WASTE MANAGEMENT

Volume 9, Number 1 1989

CONTENTS

A. Alan Moghissi	1	Editorial
G. F. Piepel **G. B. Mellinger** **M. A. H. Reimus**	3	A Statistical Approach for Characterizing Chemical Durability Within a Waste Glass Compositional Region
Muhammad Riaz **Edmondo Zamorani**	13	Evaluation of Cement Matrices for the Immobilization of Polychlorinated Benzenes
Kathleen C. Swallow **William R. Killilea** **Kenneth C. Malinowski** **Carl N. Staszak**	19	The Modar Process for the Destruction of Hazardous Organic Wastes—Field Test of a Pilot-Scale Unit
G. G. Eichholz **W. J. Park** **C. A. Hazin**	27	Tritium Penetration Through Concrete
Danny R. Jackson **James Dragun** **Conrad Lawrence** **Kurt Lamber**	37	A Sampling Method for Preventing Cross Contamination of Soil Samples Obtained From Intact Cores
A. I. Hafez **S. I. Hawash** **G. El-Diwani** **H. El. Abd**	41	Reaction Study of M-Toluidine Azodye Ozonation
Hideo Matsuzuru **Atuyuki Suzuki**	45	Modeling of Release of Radionuclides From an Engineered Disposal Facility for Shallow-Land Disposal of Low-Level Radioactive Wastes
M. Schvoerer **M. Martinaud** **R. Chapoulie** **P. Muller**	57	Detection by Thermoluminescence of Damages Created by α Desintegrations in Radionuclear Waste Glass
	63	Letter to the Editor
		Book Reviews
Lucjan Pawlowski	65	*Mathematical Modelling of Environmental and Ecological Systems* edited by J. B. Shukla, T. G. Hallam and V. Capasso
Lucjan Pawlowski	66	*Environmental Biotechnology—Reducing Risks from Environmental Chemicals Through Biotechnology* edited by Gilbert S. Omenn
	I	New Patents and Published Patent Applications from the United States and Over 30 other Countries
	XIII	Software Survey Section

Volume 9, Number 2 1989

CONTENTS

Incineration

V. T. Le **N. V. Beamer** **L. P. Buckley**	67	Experience with Radioactive Waste Incineration at Chalk River Nuclear Laboratories
T. Ujihara **M. Hayashi** **I. Oda** **Y. Hara** **K. Kuwayama** **T. Shigeta** **I. Tanaka**	73	Progress on Radioactive Waste Slurry Incineration with Oxygen and Steam (IOS Process)
H. Leibold **F. Dirks** **V. Rüdinger**	87	Particulate Emissions from a LLW Incinerator and Off-Gas Cleaning with a New Type of Ceramic Candle Filter
R. S. Simpson **D. L. Charlesworth**	95	Immobilization of Incinerator Ash in a Concrete Matrix
I. J. Licis **H. B. Mason**	101	Boilers Cofiring Hazardous Waste: Effects of Hysteresis on Performance Measurements
Laurel J. Staley **Marta K. Richards** **George L. Huffman** **Robert A. Olexsey** **Barry Dellinger**	109	Turbulent Flame Reactor Studies of Chlorinated Hydrocarbon Destruction Efficiency
Surendra B. Joshi **D. J. Fournier, Jr.** **S. Roychoudhury** **C. L. Proctor**	115	Incineration Surrogate Ratioing Technique
Paul M. Lemieux **Geoffrey D. Silcox** **David W. Pershing**	125	Experimental and Theoretical Studies on the Combustion of Waste Zirconium Sponge in a Rotary Kiln Simulator
	139	Books Received
	I	New Patents and Published Patent Applications from the United States and Over 30 Other Countries
	XXI	Software Survey Section

Volume 9, Number 3 1989

CONTENTS

J. C. Agunwamba **N. Egbuniwe** **J. O. Ademiluyi**	141	Mass Balance Filtration Equation

Curtis C. Travis
Holly A. Hattemer-Frey 151 Human Exposure to Dioxin from Municipal Solid Waste Incineration

Peter M. Huck
Gordon L. McClymont
Franklin W. Schwartz
Bruce E. Nesbitt
William B. Anderson
Byron Kratochvil 157 Modelling of Radium-226 Leaching from Barium-Radium Sulfate Sludges

Lars Carlsen
Ole John Nielsen
Peter Bo 165 The Influence of Complexation on Radionuclide Migration: A Theoretical Study

Shang-Jyh Liu
Kuo-Liang Soong
Jing-Tong Yang 171 Final Disposal of Spent Nuclear Fuel in Taiwan: A State-of-the-Art Technical Overview

Hiroshi Kamizono
Tamio Sagawa
Shingo Tashiro 189 Continuous-Flow Leach Tests of Simulated High-Level Waste Glass in Synthetic Basalt Groundwater

195 Letters to the Editor

199 Erratum

I New Patents and Published Patent Applications from the United States and Over 30 Other Countries

XXVII Software Survey Section
MAXI Disk

Volume 9, Number 4 1989

CONTENTS

A. Alan Moghissi 201 Editorial: The Cost of Restoration of Uncontrolled Hazardous Waste Sites

J. P. van der Hoek
A. Klapwijk 203 Reduction of Regeneration Salt Requirement and Waste Disposal in an Ion Exchange Process for Nitrate Removal from Ground Water

Jong Soon Song
Kun Jai Lee 211 Stochastic Analysis of Radioactive Waste Package Performance Using First-Order Reliability Method

Claude W. Sill
David S. Sill 219 Determination of Actinides in Nuclear Wastes and Reference Materials for Ores and Mill Tailings

V. G. G. Mennella
E. Zavattiero
O. Castagnoli 231 Low Energy Consumption Management of Agricultural Residues

S. F. Mughabghab
T. M. Sullivan 239 Evaluation of the Pitting Corrosion of Carbon Steels and Other Ferrous Metals in Soil Systems

B. E. Scheetz
D. M. Roy
C. Duffy 253 Elevated Temperature (Hydrothermal) Stability of Cementitious Sealants for a Deep Geological Repository in Tuff

Book Reviews

Margaret Boryczka	261	*Contemporary Social Issues*: *A Bibliographic Series*, *No.* 11 *Toxic Waste* by Joan Nordquist
Edward Kaplan	261	*Hazardous Waste Site Management*: *Water Quality Issues* by the National Research Council
Roger D. Kadeg	263	*Extremely Hazardous Substances—Superfund Chemical Profiles—Volumes I and II* by U.S. Environmental Protection Agency
Craig F. Smith	263	*Practical Handbook for Environmental Control* edited by Conrad P. Straub
Jim Mayberry	264	*Risk Assessment at Hazardous Waste Sites*, edited by F. A. Long and Glenn E. Schweitzer
Dillard B. Shipler	264	*High-Level Radioactive Waste and Spent Nuclear Fuel Disposal*: *An Assessment of Impact Evaluations and Decisionmaking Systems*, *A Report by the High-Level Nuclear Waste Disposal Policy Research Project* by Lyndon B. Johnson School of Public Affairs
Margaret M. Dolan	265	*Acronyms Associated with the High-Level Radioactive Waste Disposal Program* by C. Runyan
Margaret M. Dolan	265	*State Legislative Report*, *State Asbestos Programs*: *The Fee-based Financing Alternative* by D. K. Neilander and D. M. Sacarto
Margaret M. Dolan	266	*State Legislative Report*, *Asbestos in Buildings*: *The State Role* and *State Asbestos Programs Related to the Asbestos Hazard Emergency Response Act* by D. K. Neilander and D. M. Sacarto
	I	List of Contents and Author Index, Volume 9, 1989
	IX	New Patents and Published Patent Applications from the United States and Over 30 Other Countries
	XXXV	Software Survey Section